
33rd Annual UIA Symposium

September 21-24, 2003

*University Place Conference Center
Indianapolis, Indiana*

In this issue of *Vibrations* you will find the Call for Papers and the Registration forms for our Fall Symposium. We hope you are as excited as we are about the new location and the wonderful facilities available. The University Place Conference Center and Hotel is specifically designed and staffed for multi-day meetings. Its location in the center of Indiana's cultural corridor is close to university facilities, museums, theaters, parks and sports venues that enhance the enjoyment of attendees.

University Place guests have access to the world class sports facilities that make up the IUPUI Sport Complex including three pools where 11 Olympic team trials have been held., Track and Soccer Stadium, and Tennis Center all linked to University Place by a covered skywalk. Arrangements can be made for Gold Medal Cards for meeting attendees for five days use of the facilities and reduced price court time for the Tennis Center. Let one of us know if you are interested. Sport related art hangs in the corridors and lobbies of University Place so for the sports fan the facility is ideal. But there are other attractions for the less active among us:

- Within a half mile is the White River State Park the site of the Indiana State Museum, White River Gardens, The Indianapolis Zoo, IMAX theater, Museum of American Indians, and landscaped parks and vistas to be enjoyed.
- Within one mile are shops, theaters and clubs, the RCA Dome-where the Indianapolis Colts play, Victory Field, Indiana's newly restored Statehouse and the Indiana War Memorial.
- The Indianapolis Motor Speedway and Hall of Fame Museum are only a short ride away and there will be Formula One racing that weekend!
Friday, Sept. 26 : practice; Saturday, Sept. 27: qualifying and racing is Sunday, Sept. 28.
To make arrangements to attend the race, visit the IMS website at www.usgpindy.com!

If the above is not incentive enough keep watching for the program agenda of world class papers that are coming together and be sure not to miss the chance to meet many of the "movers and shakers" in the world of ultrasonics.

Looking forward to seeing you in September,
Janet Devine and Ron Staut, Co-chairs.

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UIA Symposium at a Glance

PROGRAM GOALS

- To present a world class educational program on timely issues pertaining to the field of high power ultrasound in industry and medicine.
- To provide a forum for discussion and networking among professionals employed or interested in the science and application of ultrasonics.
- To provide a program that will be of mutual benefit to the individuals attending: these attendees will be interested in the cross fertilization of ideas, which is available from divergent applications and research using ultrasonic energy.

CONFERENCE OVERVIEW

Work breaks with refreshments will be provided on Monday and Tuesday morning and afternoon and Wednesday morning. Exhibitor Booths will be open in the mornings, during breaks, and during the Wine and Cheese Reception.

Sunday, September 21

1:00 pm – 5:00 pm

Exhibitor Booth Set Up

1:00 pm – 5:00 pm

Sign in and Late Registration

5:00 pm – 7:00 pm

UIA Board Meeting

Monday, September 22

7:00 am – 8:00 am

Late Registration and Continental Breakfast

8:00 am – 12:00 pm

Industrial Applications for Ultrasound

Chair: Jeff Frantz, Branson Ultrasonics

12:00 pm – 1:00 pm
Presentation

Buffet Lunch, Graduate Research Award Ceremony, and Paper

1:00 pm – 5:00 pm

High Power Ultrasound in Industry

Chair: Tom Kirkland, Dukane Intelligent Assembly Solutions

5:30 pm – 6:30 pm

Wine and Cheese Reception

Tuesday, September 23

7:00 am – 8:00 am

Late Registration and Continental Breakfast

8:00 am – 12:00 pm

Sonochemistry

Chair: Ken Suslick, University of Illinois at Urbana-Champaign

12:00 pm – 1:00 pm

Buffet Lunch with Board Member Nominations and Voting

1:00 pm – 5:00 pm

Biochemical and Materials Processing with Ultrasound

Chair: Mark Schafer, Sonic Tech, Inc.

Wednesday, September 24

7:00 am – 8:00 am

Late Registration and Continental Breakfast

8:00 am – 12:00 pm

Medical Applications of Ultrasound

Chairs: Naren Sanghvi and Mike Phillips, Focus Surgery

12:00 pm – 1:00 pm

Bistro Lunch

1:00 pm – 2:30 pm

Board Meeting

Tours of a piezoelectric veramic manufacturing facility and/or the medical facilities of Indiana University will be arranged and announced by September 2, 2003. Availability of tours will be based on preferences expressed by attendees on their registration forms.

Symposium Co-Chairs: Janet Devine, Sonobond Ultrasonics, and Ron Staut, APC International

UIA 33rd Annual Symposium Registration Form

Please print and complete all information. This information will be printed in the registration listing and on your name badge.

Name (circle one) Dr./Mr./Mrs./Ms. _____

Nickname _____ Title _____

Organization _____

Address _____

City _____ State _____ Zip _____

Country _____

Phone _____ Fax _____

E-mail _____

Member of (please check all that apply) UIA UTAG USS ASA EWI IEEE/UFFC

Do you need UIA Membership Information? Yes, send me more information (or sign up at www.ultrasonics.org).

Please list your job sector (i.e., industry, medical device, education) _____

Please list your area(s) of interest (i.e., laboratory, materials, sensing, etc.) _____

Please list any of your credentials _____

Registration Fees for UIA Symposium

	Full Conference	Two Days Only
UIA Member	<input type="checkbox"/> US \$495	<input type="checkbox"/> US \$395
Nonmember	<input type="checkbox"/> US \$530*	<input type="checkbox"/> US \$430*
Retiree	<input type="checkbox"/> US \$430	<input type="checkbox"/> US \$430
Presenter	<input type="checkbox"/> US \$430	<input type="checkbox"/> US \$430
Student	<input type="checkbox"/> US \$275	<input type="checkbox"/> US \$100 per day
Student Presenter	<input type="checkbox"/> US \$75 for day of presentation	

*Special discounted membership dues will be available to those joining UIA at the Symposium.

If offered, I would like to tour: Mon. Tues. AM
 Piezoceramic Manufacturing Facility Wed. PM
 Indiana University Medical Facilities

I will attend:

- Monday
Industrial Applications
Graduate Research Award Presentation
High Power Application
- Monday Evening
Wine & Cheese Reception*
- Tuesday
Sonochemistry
Business Meeting
Biochemical & Materials Processing
- Wednesday
Medical Applications

*You need not attend Monday's sessions to attend the Reception

Hotel Accommodations

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\$113/Single
\$128/Double

You are responsible for your own reservations.
Cut-off date for special rates is August 20, 2003.

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UIA 33rd Annual Symposium

Graduate Research Award

Deadline July 15, 2003

The Ultrasonic Industry Association (UIA) is pleased to announce that a Graduate Research Award will be presented at the 33rd UIA Symposium on September 22–24, 2003 at University Place Conference Center, Indianapolis, Indiana. The Graduate Research Award recognizes excellence in graduate studies in the science and technologies of interest to the Ultrasonic Industry Association. The award consists of a **\$1,500 cash prize and a plaque**.

Eligibility

- Applicant must be a full-time graduate student in an academic institution.
- Applicant research topic must be in the field of ultrasonic applications (i.e. cleaning, sonochemistry, welding, medical, etc.)
- Applicant must be working on a research dissertation at the M.S. or Ph.D. level.

How to Enter?

- Send the following information to the address below:
 - A title page including:
 - Title of research topic
 - Your Name
 - Topic or Title of Paper
 - Complete mailing address
 - Telephone and Fax numbers & Email address.
 - A description of the graduate study (maximum 1 page).
 - Attach a resume including list of publications (maximum 3 pages).
- An official university transcript or letter of support from Department Chair.
 - Any other supporting information (maximum 5 pages).

Selection Process

The Board of Directors of the UIA will select the winner using the following criteria: description of the research topic and its relevance to the UIA interest areas and the academic excellence of the applicant.

Announcement

The award recipient will be notified by August 1, 2003. The award will be made at the 33rd UIA Annual Symposium at University Place Conference Center, Indianapolis, Indiana. The recipient will be invited to present his/her paper at the Annual Meeting of the UIA when the award will be presented. The winner may also invite a couple of significant family members, too.

Deadline

Your application must be received no later than July 15, 2003.

Send Applications to:

Ultrasonic Industry Association, Inc.

c/o Seth Hettinger, 1111 N. Dunlap Ave., Savoy, IL 61874

Phone: (217) 356-3182, ext 34

Email: uia@ultrasonics.org or seth@assochq.org • Web: www.ultrasonics.org



33rd Annual UIA Symposium

September 22-24, 2003

University Place Conference Center, Indianapolis, Indiana

Call for Papers

Deadline for submission: July 15, 2003

The Ultrasonic Industry Association, Inc. invites you to submit a 200 word abstract for consideration of presentation at the UIA's 33rd Annual Symposium.

Please check the appropriate category of your proposed presentation:

- Industrial Applications
 - NDE
 - Cleaning
 - Measurement
 - Components
- Underwater
 - Pulp/Paper
 - Sensing
 - Atomization
- Sonically Enhanced Processing
 - Sonochemistry
 - Cleaning
 - Agglomeration
 - Separation
- Environmental
 - Pharmaceutical
 - Sonoluminescence
- Defoaming
 - Degassing
 - Compaction
- High Power
 - Metal and plastic joining & fastening
 - Welding Films, Fabrics, Metals, Plastics
 - Cutting
- Medical
 - Surgical/Therapeutic
 - Cavitation
- High Intensity Focused Ultrasound
 - Biological Cell Disruption
- Power Supplies/Generators

Lead a Workshop: _____

Please print clearly:

Presentation Title: _____

Authors: _____

Presenter(s): _____

Main Contact Name (Person to receive correspondence): _____

Address: _____

City/State/Zip: _____

Phone #: _____ Fax #: _____

Email: _____

Deadline: July 15, 2003 for submitting *Call for Papers Form*

Important Information: Presentations will be no longer than 25-30 minutes; final abstracts (diskette or Email) and bio-sketches must be submitted to UIA Headquarters no later than July 15, 2003. The session chair will contact you directly to discuss your proposed presentation. *Accepted presenters receive a discounted registration fee.*

Chairpersons: Ron Staut, APC International, Phone: (570) 726-6961, Fax: (570) 726-7466, Email: ronstaut@aol.com
Janet Devine, Sonobond, Phone: (610) 696-4710, Fax: (610) 692-0674, Email: jdevine@sonobondultrasonic.com

Ultrasonic Industry Association, Inc.

Attn: UIA Call for Papers, 1111 N. Dunlap Ave., Savoy, IL 61874

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Web: www.ultrasonics.org

UIA Obituaries

HOWARD DEANS, *Entrepreneur, Inventor, Patent Holder, Pioneer of Ultrasonic Welding*

DOB: Dec. 25, 1918

DOD: Dec. 8, 2002, Springfield, PA, Age 83

Howard received his B.S. in Electrical Engineering from Drexel University. His career started in Philadelphia designing industrial heat processing equipment. During that time one of the tasks he was given was to engineer and calculate multi-element optical lens designs for Naval gunsight calibration equipment. Later he and a partner formed their own company, D & S Engineering Co., that specialized in dimensionally precise photographic reproduction of optical comparator screens, reticules, chemically etched strain gages, integrated circuit masters and other devices.

Having access to ultrasonic equipment, they discovered the ability to weld plastic film and utilized it for splicing photo reproduction belts. This was the first known application of ultrasonics for practical use in plastic welding. After the death of his partner, Howard went to work for Kleer-vu Industries and began fledgling ultrasonic plastic welding division know as Ultra Sonic Seal Company. The company introduced its first Film Sealer to the market in 1960. The Sealers were redesigned in 1964 for use on rigid molded plastic parts. Although the company was sold a few times, to Ultrasonic Systems Inc. and then Sonics & Materials Inc., Howard continued on as the General Manager until Nov. 2000, when he semi-retired and became a consultant.

During those years he was granted several patents related to various aspects of ultrasonics such as; applications, methods, equipment and tooling. Today, the ultrasonic assembly process is used in virtually every industry employing plastics and has improved the lives of millions of people throughout the world.

Howard is survived by his wife, Marion, two sons and two grandchildren.

WILLIAM C. ELMORE, *Physics Professor, Consultant in Ultrasonics*

With regret the UIA announces the death on January 23rd 2003, of William C. Elmore, 93, former Swarthmore College physics professor. Dr Elmore was named an inventor in the first ultrasonic metal welding patent awarded in 1960 to Aeroprojects (later Sonobond). He was actively engaged as a consultant in the field of ultrasonics for many years and among his inventions were the Force-Insensitive mount also known as the Elmore mount.

A native of Montour Falls, NY., Professor Elmore taught at Swarthmore from 1938 until his retirement in 1974. Prior to that, he had served as a physics instructor at Massachusetts Institute of Technology.

He thought of himself as an educator but was also a scientist and engineer whose credentials included work on the Manhattan project during World War II, consultation with industry, and he co-authored several books, including a book on wave phenomena, "Physics of Waves" in 1969.

Professor Elmore had a command of the musical scale as well as wave theory. He played the saxophone in dance bands while an undergraduate at Lehigh University and while pursuing a doctorate from Yale University. At Los Alamos he loved playing accordion at square dances and later was the founding pianist for a Swarthmore faculty band called the Moonshiners.

He is survived by daughters Page Evett, Mary-Leigh Miller and Elizabeth Elmore, son David and 10 grandchildren. His wife of 66 years, Elizabeth, passed away on January 1st this year.

Memorial donations made be made for the William C. Elmore Prize, awarded annually to a graduating senior of Swarthmore College for distinguished work in physics, astronomy or astrophysics. Donations may be sent to Ruth Krakower, Gift Records, Sproul Observatory, 500 College Avenue, Swarthmore, PA 19081.

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Ultrasonics International 2003: Final programme information now available

Final oral and poster programme information is now available for Ultrasonics International 2003 which takes place 30 June - 3 July 2003 in Granada, Spain, via the conference website at:

<http://www.ui03.com>

UI'03 is comprised of plenary and invited lectures and contributed oral presentations arranged within special and regular sessions supplemented by poster presentations plus an exhibition of ultrasonic instrumentation. An optional pre-conference tutorial on the fundamentals of ultrasonics and its application to nondestructive materials testing / characterisation and bio-medicine takes place on 30 June 2003.

You can register and book accommodation now at: <http://www.ui03.com>

The following plenary lectures will be presented:

Quo Vadis Medical Ultrasound?	P Lewin, Drexel University, USA
Recent Developments in High Power Ultrasonics	S. Ueha, Tokyo Institute of Technology, Japan
Ultrasonics Biomedical Technology: Marketing versus Clinical Reality	F. Forsberg, Thomas Jefferson University, USA
Non-contact Ultrasonic Techniques for Non-destructive Evaluation of Materials and Structures	R. E. Green Jr., Johns Hopkins University, USA
An Overview of Time-reversed Acoustics	M. Fink, Laboratoire Ondes et Acoustique, France
Perspectives in High-intensity Focused Ultrasound	K. Hynynen, Brigham & Women's Hospital, USA

Special sessions led by leading international experts will cover:

- * Ultrasonic Modeling
- * Non-linear Ultrasonics in Materials Evaluation
- * Ultrasonics in Strongly Scattering Microstructures
- * Recent Developments in Laser Ultrasonics
- * Medical Ultrasonics Imaging I: Diagnostic Applications
- * Medical Ultrasonics Imaging II: Therapeutic Applications
- * Therapeutic Ultrasound
- * Ultrasonic Transducers, Materials and Bio-sensors
- * Quo Vadis Clinical Ultrasonics?
- * Ultrasound in Ecology
- * Recent Advancements in High-Power Ultrasonics.

In addition, regular sessions will include:

- * Ultrasonic NDE/NDT
- * NDE of Civil Structures
- * Imaging
- * Long-range Ultrasonic NDE
- * Medical/Biological Applications
- * Ultrasonic Materials Characterisation
- * Physical Acoustics & Sonochemistry
- * Surface Acoustic Waves & Acousto-Optics
- * Transducers (general)
- * Ultrasonics in Anisotropic Media
- * Ultrasonic Exposimetry.

These oral sessions are supplemented by dedicated poster sessions over the three days of the conference - full details of the posters on display at the meeting can be downloaded at: <http://www.ui03.com> For further information and to register please visit: <http://www.ui03.com> or contact: tracy2.collier@virgin.net

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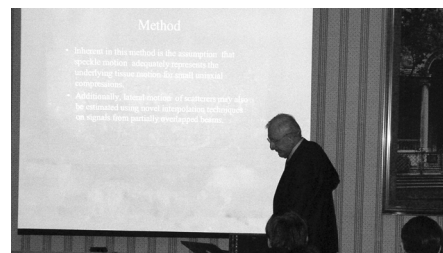
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Medical Meeting Pictures



Venue for 3rd annual UIA Medical Meeting was comfortable. Attendees commented favorably on meeting program and setting.



Dr. Chris Merrit discussing Ultrasonic Elastography



Dr. Fleming Forsberg discussing fine points of diagnosing prostate disease by contrast agent enhanced ultrasound.



Dr. Margaret A. Wheatley's session on enhancing ultrasound diagnosis through specific cell targeting with contrast agents.



Dr. Sam Howard presenting papers on new tissue surrogates for use in HIFU hardware testing.

President's Message

To All UIA Members,

Since the last issue of *Vibrations* was published, the 3rd Annual UIA Medical Program was held at the Helmsley Hotel in NYC. The program agenda is available on the Website. All of the papers were well executed and received, with several innovative technology programs described. I am pleased to offer a brief overview of the days highlights.

The first speakers, Drs. Michael and Steven Young gave updates and test results on their developments in torsional mode ultrasonic surgical devices. Dr. Sam Howard detailed the current state of the art in tissue surrogate materials to be used in testing HIFU ablation hardware. Dr. Thomas ShROUT spoke about novel piezoceramic materials and sensors being worked on at Penn State. His presentation substituted for one scheduled to be given by Vadivel Devaraju, who was called out of the country unexpectedly. Dr. Bahram Jadidian synopsized his work done with porous piezo ceramics that allow the resonant frequency of Langevin sandwich transducers to be reduced while maintaining a shorter axial dimension.

Dr. Christopher Merrit gave an interesting Featured Speaker presentation on the work being done to develop In-vivo Elastography, an exciting use of ultrasound for tissue characterization and diagnosis. Dr. Fleming Forsberg gave one of his entertaining talks on the use of contrast agents to enhance image of prostate tissue with ultrasonic imaging and its implications for HIFU therapy.

These papers were only some of the technical reports given during the day and all presentations were uniformly excellent and well received. The program ended with an

instructional mini seminar on protection of IP through the patent process by David Carter, Esq.

The audience came from far and wide, with representatives of Ethicon Corp., Riverside Research Institute, Cornell University, Zevex and Perryman Titanium, among others, being in attendance. Two companies, Blatek Inc. and TRS Technologies took the opportunity to sign up as new members of the UIA. Welcome!!

Overall, the day was a technical and social success. Thanks to all who made the day happen, especially Alan Winder for co-chairing the entire program and Jeff Vaitekunas for soliciting several of the papers and participating in the planning phase.

As a general observation and comment, the continental breakfast, coffee breaks and lunch buffet gave ample time for the attendees to mingle, compare notes and make new contacts. Several synergies were formed at the meeting, with longer-range mutual programs being discussed. The interaction potential between researchers, engineers, hardware development companies and marketers is a major benefit of attending our seminars and I encourage all members and interested parties to take advantage of the opportunity in the future. As a reminder, the upcoming UIA Fall Symposium is fast approaching. The details are included in this issue of *Vibrations*.

Looking forward to seeing you in Indianapolis!!

Ronald R. Manna
President UIA

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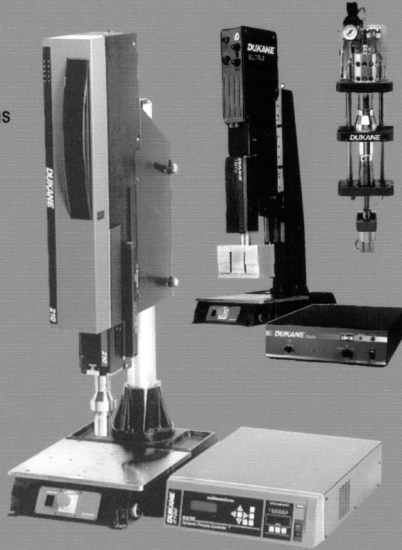
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